UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,645	03/24/2004	William Michael McCardle	200600376-1	6121

22879 7590 04/30/2008

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
TRAN, NOHI V	

ART UNIT	PAPER NUMBER
2151	

NOTIFICATION DATE	DELIVERY MODE
04/30/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

Office Action Summary	Application No.	Applicant(s)	
	10/808,645	MCCARDLE ET AL.	
	Examiner	Art Unit	
	NGHI V. TRAN	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-14,16-20 and 28-35* is/are pending in the application.

4a) Of the above claim(s) *30-35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-14, 16-20, and 28-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed on February 21, 2008. No claims have been amended. Claims 5, 15, and 21-27 have been previously canceled. No claims have been added. Therefore, claims 1-4, 6-14, 16-20, and 28-35 are presented for further examination.

Election/Restrictions

2. Applicant's election with traverse of Group II, claims 30-35 in the reply filed on February 21, 2008 is acknowledged. The traversal is on the ground(s) that Group II, claims 30-35 similarly relate to software that provide GUI for performing a selection of a defined cluster based on physical addresses and association of image with the defined cluster. This is not found persuasive because Group I, claims 1-4, 6-14, 16-20, and 28-29, drawn to a method and/or software of compute clustering identify a defined cluster, storing the physical locations associating a plurality of images for use on different network devices, classified in class 709, subclass 223. On the other hand, Group II, claims 30-35, drawn to provide a GUI that receive information from a user to create a defined cluster by pointing and clicking on a portion of the plurality of receptor illustrated in the selection area, classified in class 715, subclass 744. In this case, the search required for Group I is not required for Group II.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-4, 6-14, 16-24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmer et al., United States Patent Number 7,051,215 (hereinafter Zimmer), in view of Buchanan et al., United States Patent Application Publication 2003/0204503 (hereinafter Buchanan).

8. With respect to claims 1, 11, and 21, Zimmer teaches a method of compute clustering [see abstract and figs.1-3], comprising:

- identifying a defined cluster [col.1, ln.45 through col.2, ln.30], the cluster including a plurality of receptors [= an interface plane **104** such as backplane and/or mid-plane, col.3, lns.62-66] in a chassis [= rack mounted chassis **100**], each receptor configured to couple the chassis to a network device [= blades **102** and/or **200**, figs.1-2], at least one of the plurality of receptors in the cluster being unoccupied by a network device [= all slots in a chassis do not need to be occupied, col.3, lns.58-62];

- storing the physical locations [= blade ID such as blade 1-N and/or MAC address, col.10, lns.60-67] associated with each of the plurality of receptors [fig.6 and col.10, lns.60-67];
- wherein storing the physical locations includes storing the physical location associated with the at least one receptor in the cluster that is unoccupied by a network device [col.12, lns.31-53 and col.3, lns.58-62].

However, Zimmer does not explicitly show associating each stored receptor physical location of the defined cluster with a not necessarily same selected one of a plurality of images; receiving a first selected image for a first network device of the defined cluster in accordance with the physical address of the receptor coupled to the first network device; and receiving a second selected image for a second network device of the defined cluster in accordance with the physical address of the receptor coupled to the second network device, wherein the second selected image is different from the first selected image.

In a clustered servers method, Buchanan discloses associating each stored receptor physical location of the defined cluster with a not necessarily same selected one of a plurality of images; receiving a first selected image for a first network device of the defined cluster in accordance with the physical address of the receptor coupled to the first network device; and receiving a second selected image for a second network device of the defined cluster in accordance with the physical address of the receptor coupled to the second network device, wherein the second selected image is different from the first selected image [paragraphs 0024-0034].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Buchanan by receiving a first selected image for a first network device of the defined cluster in accordance with the physical address of the receptor coupled to the first network device and receiving a second selected image for a second network device of the defined cluster in accordance with the physical address of the receptor coupled to the second network device, wherein the second selected image is different from the first selected image because this feature provides a multiple boot images [Buchanan, paragraph 0028]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to satisfy boot image sessions initiated by one or more client systems on the network [Buchanan, see abstract].

9. With respect to claims 2, 12, and 22, Zimmer does not explicitly show receiving an image designated as a default image for a sub-plurality of receptors in the defined cluster.

In a related method, Buchanan discloses receiving an image designated as a default image [= the boot image server may assign the new session a default responsiveness with a high priority, see paragraph 0020].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Buchanan by receiving a default image because this feature provides a multiple boot images [Buchanan, paragraph 0028]. It is for this reason that one of ordinary skill in the art at the time of

the invention would have been motivated in order to satisfy boot image sessions initiated by one or more client systems on the network [Buchanan, see abstract].

10. With respect to claims 3, 13, and 23, Zimmer further teaches at least one of the plurality of receptors in the cluster being unoccupied by a network device [i.e. all slots in a chassis do not need to be occupied, col.3, lns.58-62];

However, Zimmer does not explicitly show associating the default image with the at least one receptor in the defined cluster.

In a related method, Buchanan discloses receiving an image designated as a default image [= the boot image server may assign the new session a default responsiveness with a high priority, see paragraph 0020].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Buchanan by receiving a default image because this feature provides a multiple boot images [Buchanan, paragraph 0028]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to satisfy boot image sessions initiated by one or more client systems on the network [Buchanan, see abstract].

11. With respect to claims 4, 14, and 24, Zimmer does not explicitly show wherein each of the plurality of images comprises a different physical location identifying different software that operates to configure the plurality of receptors in the defined cluster.

In a related method, Buchanan discloses wherein each of the plurality of images comprises a different physical location identifying different software that operates to configure the plurality of receptors in the defined cluster [paragraphs 0024-0034].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Buchanan by identifying a different physical location because this feature provides a multiple boot images [Buchanan, paragraph 0028]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to satisfy boot image sessions initiated by one or more client systems on the network [Buchanan, see abstract].

12. With respect to claims 6, 16, and 26, Zimmer does not explicitly show wherein a master image comprises a physical location identifying software that operates to configure a selected receptor.

In a related method, Buchanan discloses wherein the master image comprises a physical location identifying software that operates to configure the selected receptor [paragraphs 0024-0034].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Buchanan by identifying a different physical location because this feature provides a multiple boot images [Buchanan, paragraph 0028]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to satisfy boot image

sessions initiated by one or more client systems on the network [Buchanan, see abstract].

13. With respect to claims 7-10 and 17-20, Zimmer further teaches detecting the presence of a network device coupled to the at least one receptor in the defined cluster that was previously unoccupied; and in response to detecting the presence [col.3, ln.54 through col.4, ln.42].

However, Zimmer does not explicitly show automatically installing an image on the network device; providing message the user with the option of installing a default image on the network device; and overriding the image by installing the default image on the network device.

In a related method, Buchanan discloses automatically installing an image on the network device [paragraphs 0005 and 0008]; providing message the user with the option of installing a default image on the network device [paragraph 0020]; and overriding the image by installing the default image on the network device [= the boot image server may assign the new session a default responsiveness with a high priority, see paragraph 0020].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Buchanan by operating to configure the selected receptor via a physical location identifying software because this feature provides a multiple boot images [Buchanan, paragraph 0028]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been

motivated in order to satisfy boot image sessions initiated by one or more client systems on the network [Buchanan, see abstract].

14. With respect to claims 28 and 29, Zimmer further teaches storing a set of attributes for the defined cluster [= manage blade activities, col.4, ll.39-42 and col.3, ll.57-62]; expand the cluster by identifying additional receptors [= blades can be added or removed "hot swapped" on the fly, col.3, ll.62 through col.4, ll.6].

However, Zimmer does not explicitly show update a network device coupled to a newly identified receptor in the defined cluster automatically using the store set of attributes.

In a related method, Buchanan discloses update a network device coupled to a newly identified receptor in the defined cluster automatically [paragraphs 0005 and 0008] using the store set of attributes [paragraph 0020 and 0027-0028].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Buchanan by updating a network device coupled to a newly identified receptor in the defined cluster automatically using the store set of attributes because this feature provides a multiple boot images [Buchanan, paragraph 0028]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to satisfy boot image sessions initiated by one or more client systems on the network [Buchanan, see abstract].

Response to Arguments

15. Applicant's arguments filed February 21, 2008 have been fully considered but they are not persuasive as following: Zimmer teaches a method of compute clustering [see abstract and figs.1-3], comprising: identifying a defined cluster [col.1, ln.45 through col.2, ln.30], the cluster including a plurality of receptors [= an interface plane **104** such as backplane and/or mid-plane, col.3, lns.62-66] in a chassis [= rack mounted chassis **100**], each receptor configured to couple the chassis to a network device [= blades **102** and/or **200**, figs.1-2], at least one of the plurality of receptors in the cluster being unoccupied by a network device [= all slots in a chassis do not need to be occupied, col.3, lns.58-62]; storing the physical locations [= blade ID such as blade 1-N and/or MAC address, col.10, lns.60-67] associated with each of the plurality of receptors [fig.6 and col.10, lns.60-67]; wherein storing the physical locations includes storing the physical location associated with the at least one receptor in the cluster that is unoccupied by a network device [col.12, lns.31-53 and col.3, lns.58-62]. However, Zimmer does not explicitly show associating each stored receptor physical location of the defined cluster with a not necessarily same selected one of a plurality of images; receiving a first selected image for a first network device of the defined cluster in accordance with the physical address of the receptor coupled to the first network device; and receiving a second selected image for a second network device of the defined cluster in accordance with the physical address of the receptor coupled to the second network device, wherein the second selected image is different from the first selected image. In a clustered servers method, Buchanan discloses associating each

stored receptor physical location of the defined cluster with a not necessarily same selected one of a plurality of images; receiving a first selected image for a first network device of the defined cluster in accordance with the physical address of the receptor coupled to the first network device; and receiving a second selected image for a second network device of the defined cluster in accordance with the physical address of the receptor coupled to the second network device, wherein the second selected image is different from the first selected image [paragraphs 0024-0034]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Buchanan by receiving a first selected image for a first network device of the defined cluster in accordance with the physical address of the receptor coupled to the first network device and receiving a second selected image for a second network device of the defined cluster in accordance with the physical address of the receptor coupled to the second network device, wherein the second selected image is different from the first selected image because this feature provides a multiple boot images [Buchanan, paragraph 0028]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to satisfy boot image sessions initiated by one or more client systems on the network [Buchanan, see abstract].

16. In response to the applicant's arguments that Buchanan fails to teach "associating each stored receptor physical location of the defined cluster with a not necessarily same selected one of a plurality of image," the examiner respectfully

disagrees. Applicant obviously attacks references individually without taking into consideration based on the teaching of combinations of references as show in the above. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642F. 2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F. 2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Buchanan discloses associating each stored receptor physical location [= assign an address to the client system requesting a boot image, paragraph 0004, and client ID **200**] of the defined cluster [For example, multiple network servers are installed in a single chassis or rack, paragraph 0005] with a not necessarily same selected one of a plurality of image [= different image **208**, fig.2]. An address of Buchanan could be a physical or virtual address. However, Zimmer clearly discloses physical location [= blade ID such as blade 1-N and/or MAC address, col.10, ll.60-67] associated with an image [= each blade employs a respective set of firmware that runs prior to the OS load such as pre-boot, col.3, ll.37-40]. Therefore, in the combination of Zimmer in view of Buchanan discloses claimed feature as show in above.

17. In response to the applicant's arguments that no mention in Buchanan of "physical location" being associated with an "image", the examiner respectfully disagrees. Applicant obviously attacks references individually without taking into consideration based on the teaching of combinations of references as show in the above. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642F. 2d 413,

208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F. 2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Buchanan discloses associating each stored receptor physical location [= assign an address to the client system requesting a boot image, paragraph 0004, and client ID **200**] of the defined cluster [For example, multiple network servers are installed in a single chassis or rack, paragraph 0005] with a not necessarily same selected one of a plurality of image [= different image **208**, fig.2]. An address of Buchanan could be a physical or virtual address. However, Zimmer clearly discloses physical location [= blade ID such as blade 1-N and/or MAC address, col.10, ll.60-67] associated with an image [= each blade employs a respective set of firmware that runs prior to the OS load such as pre-boot, col.3, ll.37-40]. Therefore, in the combination of Zimmer in view of Buchanan discloses claimed feature as show in above.

18. In response to the applicant's arguments that Buchanan does not suggest any sort of association of images with physical addresses of a receptor for network device, the examiner respectfully disagrees. Applicant obviously attacks references individually without taking into consideration based on the teaching of combinations of references as show in the above. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642F. 2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F. 2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Buchanan discloses associating each stored receptor physical location [= assign an address to the client system requesting a boot image, paragraph 0004, and client ID **200**] of the defined cluster [For example, multiple network

servers are installed in a single chassis or rack, paragraph 0005] with a not necessarily same selected one of a plurality of image [= different image **208**, fig.2]. An address of Buchanan could be a physical or virtual address. However, Zimmer clearly discloses physical location [= blade ID such as blade 1-N and/or MAC address, col.10, ll.60-67] associated with an image [= each blade employs a respective set of firmware that runs prior to the OS load such as pre-boot, col.3, ll.37-40]. Therefore, in the combination of Zimmer in view of Buchanan discloses claimed feature as show in above.

19. In response to the applicant's arguments that Buchanan does not or suggest the use of physical addresses, the examiner respectfully disagrees. Applicant obviously attacks references individually without taking into consideration based on the teaching of combinations of references as show in the above. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642F. 2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F. 2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Buchanan discloses associating each stored receptor physical location [= assign an address to the client system requesting a boot image, paragraph 0004, and client ID **200**] of the defined cluster [For example, multiple network servers are installed in a single chassis or rack, paragraph 0005] with a not necessarily same selected one of a plurality of image [= different image **208**, fig.2]. An address of Buchanan could be a physical or virtual address. However, Zimmer clearly discloses physical location [= blade ID such as blade 1-N and/or MAC

address, col.10, ll.60-67] associated with an image [= each blade employs a respective set of firmware that runs prior to the OS load such as pre-boot, col.3, ll.37-40]. Therefore, in the combination of Zimmer in view of Buchanan discloses claimed feature as show in above.

20. In response to the applicant's arguments that Buchanan does not teach providing a message to a user, overriding a default image, and displaying messages to a user via a graphical user interface, the examiner respectfully disagrees. Buchanan discloses providing a message to a user, overriding a default image [= pre-boot, paragraph 0004] [For example, the boot image server may assign the new session a default responsive with a high priority, paragraph 0020. The new session includes downloading, installing, and maintaining new image over pre-boot from image server, paragraph 0020], and displaying messages to a user via a graphical user interface [= each client systems 110 include one or more I/O devices such as a network adapter, graphics adapter, etc., paragraph 0017].

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V. Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Thursday and every other Friday (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi Tran
Patent Examiner
Art Unit 2151

April 22, 2008

***/John Follansbee/
Supervisory Patent Examiner, Art Unit 2151